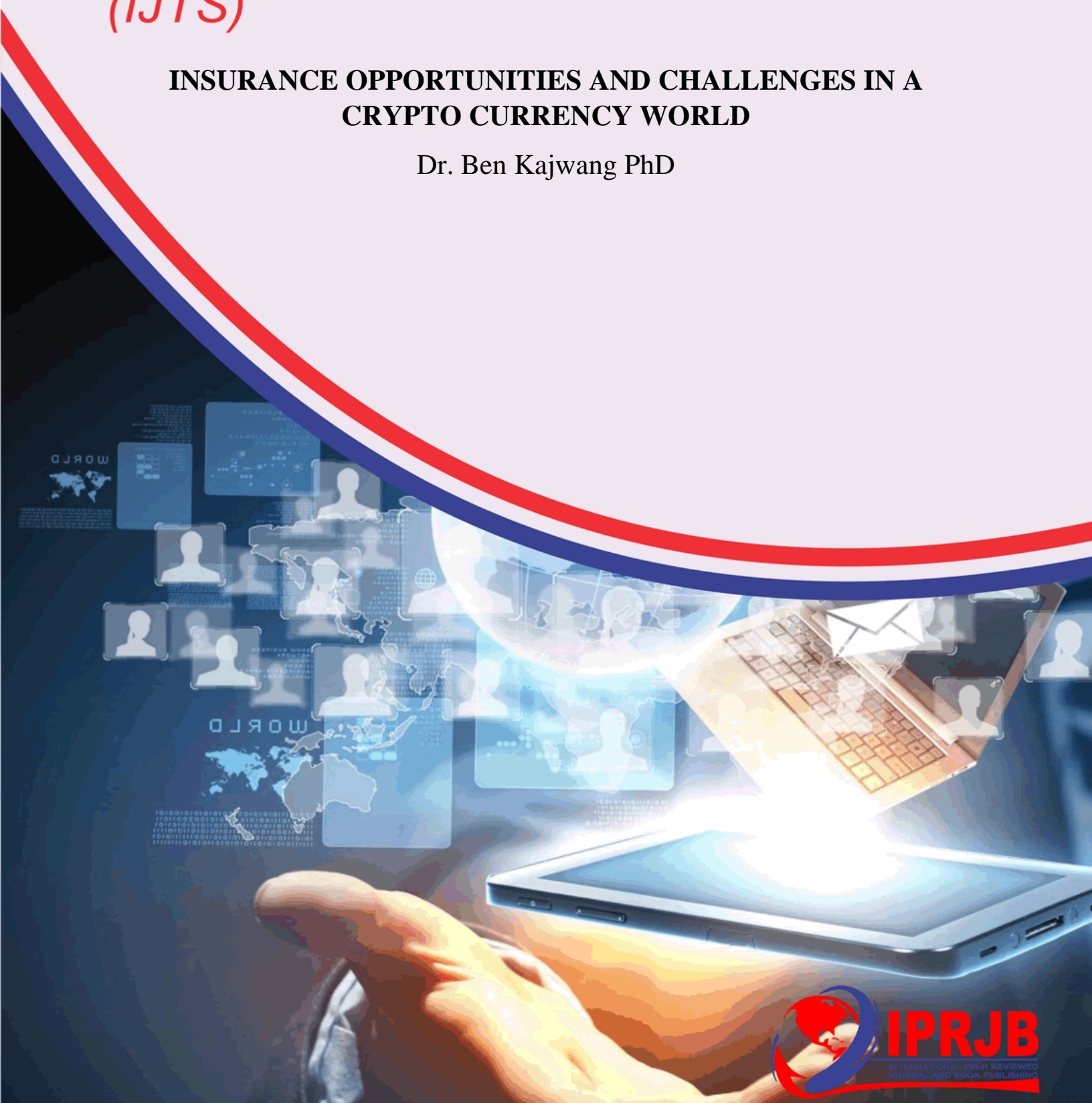


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INSURANCE OPPORTUNITIES AND CHALLENGES IN A CRYPTO CURRENCY WORLD

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Abstract

Purpose: The study analysed the insurance opportunities and challenges in a cryptocurrency world.

Materials and Methods: The research methodology used in this study consisted of a systematic literature review of previous studies from different scholars, that have discussed on insurance opportunities and challenges in the cryptocurrency world or research topic related to the study topic. This research method was preferred since it is quite reliable, cost-saving and time-saving as compared to primary research methods. This study relied more on online journals, articles and published work from libraries since they provide easy access to secondary information/data.

Results: The results indicated that the reviewed studies had conceptual and contextual gaps. This is because most of them discussed on blockchain technology and smart contracts as the only components in the cryptocurrency market that insurance firms have tapped into. In addition, some of these studies have discussed on the opportunities and challenges in the real estate market and healthcare systems or a specific type of insurance firm rather than the bigger picture of the insurance industry.

Unique contribution to the theory, practice and policy: The theories discussed in this study will be beneficial to the researchers and scholars since it gives a better understanding on the application of these theories to insurance and the cryptocurrency world. The researchers and scholars will also find this study relevant considering that studies on insurance opportunities and challenges in a cryptocurrency world are quite scarce. This study will provide a good literature base for their studies. Moreover, the identified research gaps in this study will act as a motivation to the different researchers and scholars to conduct more studies on related topics, thus bridging the research gaps on insurance opportunities and challenges in a cryptocurrency world. The study will provide a better understanding to the management of the insurance companies, on how they can invest on the various opportunities available in the cryptocurrency market. Further, the policymakers in the insurance industry will also benefit from the discussion on challenges that arise from adoption of blockchain technology and smart contract, as they implement various policies that promote growth of the insurance industry.

Keywords: *Insurance opportunities, challenges, crypto currency world*

INTRODUCTION

The cryptocurrency industry is one of the fast-growing industries that has captured the interest and imagination of many investors across the globe. Cryptocurrency is a type of digital money that is intended to function as a medium of trade over a computer network, independent of any bank or other central authority (Shirole, Darisi & Bhirud, 2020). It consists of coins or tokens that are created through the use of encryption techniques that are then put under a decentralized control where each cryptocurrency works through a distributed ledger technology (Farell, 2015). The digital ledger serves as the public financial transaction database which consists of individual coin ownership records of all investors. It is also a computerized database that uses strong cryptography to secure transaction, control the creation of additional coins and to verify the transfer of coin ownership. Though the cryptocurrency industry is volatile, the use of cryptography has ensured that the coins or tokens traded are almost impossible to counterfeit or double-spend (Bratspies, 2018).

The value of each coin or token is determined by the demand and supply in the digital trading market (Felix & von Eije, 2019). The exchange rates in the cryptocurrency market are set once the cryptocurrency system is created and then it is stated to the public. The participants in this market include; the exchangers, traders and miners. The exchangers consist of individuals who buy, sell or transfer the coins or tokens for other digital or normal currencies with traders. The traders are divided into retail, wholesalers and corporate traders. The retail traders buy Bitcoin every time they have a chance and use them as a de-facto investment account for some portion of their savings. They either hold them with the hope that the value will rise so that they can sell them at a profit or actively trade them. On the other hand, corporations are large companies that have decided to invest in Bitcoin as a treasury reserve asset to protect their wealth (Farell, 2015). In the trading process, the exchangers transfer the cost of business on to the traders which oftenly result in high trading fees for each transaction. Therefore, traders are usually advised to source for the best fee structures schedules for every exchange they use (Felix & von Eije, 2019). Further, the safety, integrity and balance of ledgers is maintained by miners who use electricity to run computer nodes within the network to validate transactions. In return, successful miners get rewarded for their efforts with new cryptocurrencies (Burggraf, 2019).

According to Bação, Duarte, Sebastião and Redzepagic (2018), Bitcoin was the first cryptocurrency that was launched into the digital market in 2009 and since then there has been more than 9,000 other cryptocurrencies including Ethereum and other altcoins that have been released in the marketplace. Out of all the cryptocurrencies released in the digital market, more than 70 of them had a market capitalization exceeding \$1 billion. However, the acceptance of use of cryptocurrencies in some countries has been generally slow due to interference by various government regulations (Tandon, Revankar & Parihar, 2021). For instance, in 2014 the UK government tasked the national treasury to conduct studies on cryptocurrencies so as to determine its role in the UK economy. On the other hand, it took 12 years before El Salvador country accepted Bitcoin as a legal tender to be traded in its market (Solodan, 2019). Additionally, in June 2021 the government of China which is one of the largest markets for cryptocurrencies, deemed all

cryptocurrency transactions as unlawful, concluding a crackdown on cryptocurrencies that had previously outlawed the operation of middlemen and miners within China (Riley, 2021).

The presence of corporations in the cryptocurrency market was also not felt until mid-2020s when the various financial institution began investing in bitcoin by holding them on their balance sheets (Erzurumlu, Oygur & Kirik, 2020). A recent survey by the CoinDesk revealed that in 2020, the largest institutional holder of Bitcoins was the merchant bank Galaxy Digital Holdings in US which held 16,400 BTC which were worth \$357 million. This has largely been attributed to its partnership with crypto firms such as Block.one and BlockFi since it was founded in January 2018. This was followed by the Crypto Brokerage Voyager Digital Ltd which held 12,260 BTC which was worth \$267 million (Ziółkowska, 2019).

Later in June 2022, 6.47% of all bitcoin invested was held by institutions in Canada and El Salvador, where the largest percentage were exchange-traded funds (ETFs). The ETFs are assets or bitcoins related to Bitcoin's price which are traded on a traditional exchange rather than the cryptocurrency exchange (Melnyk, 2019). According to Corbet (2021), the common Bitcoin ETFs are the future contracts that are traded on the Chicago Mercantile Exchange (CME). Söylemez (2019) defines a Bitcoin future contract as an agreement between two parties for the exchange of a contract unit of bitcoin. The benefit of investing in Bitcoin ETFs is that it enables investors to invest in Bitcoins without the necessary expenses and hassles of buying them. In addition, they eliminate the need for security procedures and excessive funds while providing a familiar investment type (Atzei et al., 2019).

On the other hand, institutions like the MicroStrategy held 0.615% of the total 21 million bitcoins while Tesla, a manufacturing company that deals with electric vehicles held 0.204% of the total 21 million bitcoins (Baur, Hong & Lee, 2018). A survey by BitInfoCharts (2022) indicated that in 2021, the company sold 10% of its Bitcoin Holdings so as to prove liquidity of Bitcoins as an alternative of holding cash on the balance sheet (Tan & Low, 2017). The company also considered Bitcoins as an acceptable mode of payment for its products and services but after two months the CEO reconsidered the idea indicating that the mining transitions led to emission of fossil fuels which were quite harmful. Thus, the CEO Elon Musk noted that the company will resume using Bitcoins for transactions once miners are using 50% of clean energy (Kumar, 2021).

Taylor (2017) also noted that Bitcoin mining companies are another set of institutions that held the most cryptocurrencies where the highest percentage was obtained from bitcoin rewards for validating transactions on the network. For instance, the Marathon Digital Holdings held 10,055 BTC in its corporate treasury which was worth \$ 218 million. The institution is committed to mining cryptocurrency but it is often faced with challenges of high electricity costs and changes in the price of Bitcoins (Corbet, Lucey & Yarovaya, 2021). Hut 8 Mining Corporation is another mining company in Canada that holds 7,406 BTC which is worth \$161 million. However, the corporation has faced challenges of the Crypto crash especially in 2022 where its stock prices reduced from \$20 in November 2021 to \$3 in July 2022 (Henry, Huynh & Nicholls, 2019).

Further, financial institutions such as banks and insurance firms have ventured into the cryptocurrency market where most of these institutions prefer cryptocurrencies investment to provide the best financial services to their clients (Ng & Griffin, 2018). For instance, the Wells Fargo bank in US decided to establish a regular fund on digital currencies to boost the wealth of its clients (Schaub,2021). On the other hand, JP Morgan bank has invested in digital blockchain assets such as JPM coin, bank tokens and a blockchain-based interbank payment network (Kim, Bilgin & Ryu, 2021). According to a report by the S&P Global Market Intelligence, insurance companies began investing in cryptocurrencies investments since December 2021 where six large insurance companies acquired shares of cryptocurrency investment products offered by Grayscale investments (Oberoi & Kansra, 2022). In addition, a survey by Goldman Sachs (2022) indicated that insurance companies in US are the most interested in investing in cryptocurrencies where they were ranked at 11% followed by the Asian insurance firms at 6% then European insurance firms at 1% (Gupta, Kansra & Kukreja, 2022).

Statement of the Problem

The interest of insurance companies to invest in cryptocurrencies has increasingly grown overtime leading to about 20 insurance companies investing in the cryptocurrency market. This represented an increase of 6% of insurance companies investing in cryptocurrencies by June 2022 (Oberoi & Kansra, 2022).. Cryptocurrencies have become the top five products that insurance companies invest in. However, most insurance companies do not invest directly in the purchase of bitcoin or any other cryptocurrencies but they mostly invest in cryptocurrency investment products such as shares. Most of these insurance companies buy shares from private placement transactions which they can then sell on the secondary market after a holding period. After that, these shares are made available to retail and institutional investors who purchase them over-the-counter market (Gupta, Kansra & Kukreja, 2022).

For instance in February, Grinnell Mutual Reinsurance and Donegal Mutual Insurance, two divisions of Atlantic States Insurance, purchased 18,000 and 20,000 shares respectively where the 18,000 shares were worth \$968,000. On the other hand, Georgia-based State Mutual Insurance Company was the first insurance company to buy 13,000 bitcoin shares and 9,000 Ethereum shares which were worth \$491,000 and \$141,500 from Bitcoin Trust and Ethereum Trust (Gupta, Kansra & Kukreja, 2022). On the other hand, though insurance companies have interest in investing in the cryptocurrency market, very few of them are willing to grow their cryptocurrency investment over a long period of time. A survey by Goldman Sachs (2022) revealed that only 1% of the insurance firms in US, Asia, Europe surveyed were willing to increase their crypto investments over the next 12 months while 7% indicated that they were willing to maintain their current crypto investments and 92% were not willing to invest in crypto investments in future (Pandya, Mittapalli, Gulla & Landau, 2019).

Studies on insurance opportunities and challenges in the cryptocurrency world are quite scarce. Some of the studies that will guide this discussion include; Gupta, Kansra and Kukreja (2022)

study on Applications, Challenges, and Opportunities of Blockchain Technology in Banking and Insurance, Oberoi and Kansra (2022) study on Blockchain Technology in the Insurance Industry and Pandya, Mittapalli, Gulla and Landau (2019) study on Cryptocurrency: Adoption efforts and security challenges in different countries. However, the discussion of these studies were limited to the Blockchain technology hence their findings were not satisfactory since they still much to be discussed in the cryptocurrency market. Therefore, the aim of the current study will be to examine the insurance opportunities and challenges in the cryptocurrency world.

Theoretical Review

Behavioral Portfolio Theory

The behavioral portfolio theory was postulated by Shefrin and Statman in 2000 (Akkaya, 2021). This theory provides an alternative to the assumption made in the modern portfolio theory that investors make rational decisions when choosing their portfolio of investment to ensure that they maximize the value of their portfolios. The theory argues that investors have varied aims and create an investment portfolio that meets a broad range of goals (Statman, 2018). The theory also indicates that the behavioral portfolio of an investor is created in pyramid shape with distinct layers. Each layer reflect different returns and risk expectation and the goals of the investors are used to allocate between the different layers. The pyramid shape consist of five layers where the base layer is designed in a way that it is supposed to prevent financial calamity while the upper layer is designed to attempt to optimize returns and to provide a chance for the investor to become wealthy (Chang, Young & Diaz, 2018).

Further, Akkaya (2021) indicated that the goal for each layer guides the asset allocation process for each layer. If a high return is required, more speculative assets will be added to that layer. Additionally, the number of assets in each layer will vary according to investors' risk tolerance. If investors are risk-averse more assets will be allocated in each of the five distinct layers. These investors, on the other hand, aim to maximize wealth with the restriction that it must have a minimal likelihood of falling below a given arbitrary level. They will allocate to the low-risk layer in order to achieve the idealistic level with minimal risk (Statman, 2018). Then they can afford to take greater risk with the remaining portfolio after that threshold is reached. Due to the fact that each layer was created independently, the total portfolio may appear to be diverse, but it will likely not be at its best (Momen, Esfahanipour & Seifi, 2020).

This theory will be applicable to this study since insurance companies invest in the various cryptocurrency investment products and before choosing the kind of cryptocurrency investment products, they establish their investment portfolios ensuring that the risks are low and the returns are high (Leković, 2019). In addition, the portfolios of the insurers also have different classes of assets from which they can choose from and their end goal is oftenly to maximize their returns. Therefore, before they consider investing in cryptocurrency investment products, they also assess the risk and returns of the other assets (Antony, 2020).

Arbitrage Pricing Theory (APT)

This theory was developed by Stephen Ross in 1976 (French, 2017). It discusses on a multi-factor asset pricing model which is an alternative of the capital asset pricing model. The APT model was created on the assumption that it is possible to anticipate the returns on an asset by examining the linear relationship between the expected return on the asset and the sensitivity of a security to various macroeconomic risks in the business environment (Nguyen et al., 2017). Elshqirat (2019) also noted that the APT model is a valuable tool for examining portfolios from the perspective of value investing in order to spot assets that might be momentarily mispriced. APT model posits that markets occasionally overprice securities before the market eventually corrects itself and the securities move back to fair value. Arbitrageurs intend to profit from any differences from fair market value using APT (Burzoni et al., 2019).

The APT model can be represented as follows;

$$E(R)_i = E(R)_z + (E(I) - E(R)_z) \times \beta_n$$

where:

$E(R)_i$ = Expected return on the asset

R_z = Risk-free rate of return

β_n = Sensitivity of the asset price to macroeconomic factor n

E_i = Risk premium associated with factor i

In the model, linear regression is used to estimate the beta coefficients and in order to evaluate the factor's beta, previous security returns are usually regressed on the factor. The model makes several key assumptions, including that all investors are by nature risk averse and have similar expectations, the security markets are efficient with limited opportunities for arbitrage, the number of assets is infinite, and risk factors are an indication of systematic risks that cannot be mitigated by diversification and thus have some impact on all financial assets (Elhusseiny, Michieka & Bae, 2019).

Therefore at an equilibrium market when investors have used up all of their opportunities for arbitrage in a given period, the expected return of an asset is a linear function of a variety of factors or hypothetical market indices, where the sensitivity of each factor is represented by a factor-specific beta coefficient or factor loading (Aksamit, Deng, Obłój & Tan, 2019). On the other hand, APT considers macroeconomic factors that are systematic risks which cannot be eliminated by a diversified investment portfolio. Some of these factors include; Gross National Product (GNP), Gross Domestic Product (GDP), market indices, exchange rates, unexpected changes in inflation

and corporate bonds spreads (Elgiziry & Awad, 2017). Thus, this theory will be relevant in the current study as we discuss on the opportunities and challenges that insurance firms experience as they invest in the cryptocurrency investment products which are also affected by the macroeconomic factors.

LITERATURE REVIEW

A study by Akbar and Khan (2021) discussed on modernization of the Health insurance industry using Blockchain and Smart contracts in India. The study used a sample size of 15 ICT managers who were drawn from 10 health insurance industries in India. The researcher conducted interviews on the selected ICT managers and the qualitative data collect was analysed using thematic analysis. The results of the study found that the blockchain network helped to boost the exchange of important healthcare data between different nodes with security, completeness and integrity. In addition, the blockchain technology aided in automation of the process of collecting health data of the customer, outline the policy terms, negotiate tariffs and other required information, and then apply smart contracts based on predefined user agreed business rules in a pellucid and non-debatable manner. Therefore, the study concluded that the adoption of the Blockchain system can significantly lead to revitalization and revolution of the health insurance industry not only in India but across the world.

Kar and Navin (2021) conducted a study on the diffusion of blockchain in insurance industry in Indonesia. The study adopted a systematic review of academic and scientific literatures with regards to the implementation of blockchain in the insurance sector. The findings of the study indicated that there was slow diffusion of blockchain technology in the insurance sector but a high potential in the future. Moreover, the findings also revealed that many of the insurance firms were still skeptical on the implementation and use of Blockchain technology for the actual value added in the insurance firms.

Another study by Tarr (2018) examined the opportunities, risks and challenges of using the distributed ledger technology in insurance firms in Australia. The study reviewed various articles discussing on the developments and initiatives driven by the distributed ledger technology within the insurance industry. The study noted that the main purpose of insurers and reinsurers investing in distributed ledger technology was to improve efficiency, lower the costs of transaction processing and to improve data quality and transparency. However, the study also found that distributed ledger technology has been faced by number of challenges in the existing legal frameworks. The ability of the distributed ledgers to allow every node operator to access stored data and enable nodes to make an informed guess as to identities entering certain transactions, has caused legal risks including insider trading and market abuse. The study also found that the potential liability risks that come with the use of this technology include; cyber risks, operational risks and ledger transparency risks. The study recommended that the regulators of insurance firms should improve on the existing legal

frameworks to ensure they are efficient to meet the technological challenges posed by the distributed ledger technology.

Further, a study by Bader, Bürger, Matzutt and Wehrle (2018) discussed on the benefits of smart contracts on car insurance policies in insurance firms in Germany. The study used a target population of 50 insurance firms and administered questionnaires to the operations managers of these insurance firms. The study also employed structural equation modelling to analyse the data collected from the questionnaires. The findings of the study revealed that smart contracts have a significant impact in simplifying the car insurance policy processes and reducing the underlying costs of transaction. The results also revealed that smart contracts have a potential of introducing new risks to the firms especially when the involved parties resort to well-established processes at any time, trading off cost efficiency against process reliability. Therefore, the study recommended that insurance firms should come up with better policies and strategies to mitigate against risks that may arise in the use of smart contracts to improve the car insurance processes.

Kantur and Bamuleseyo (2018) carried out a study on benefits and challenges of using smart contracts, blockchain technology among the insurance industry in Asia. The study reviewed various academic literatures and performed interviews with smart contract experts and employees from the selected insurance companies in Asia. The findings of the study revealed that insurance companies that have adopted smart contracts have limited knowledge on the legal aspect of smart contracts. The study also found that majority of the insurance firms did not have specific standards and regulations to ensure quality control during the creation of smart contracts. In addition, the results of the study indicated that failure of insurance companies to adopt the blockchain technology leads to market disruption. Therefore, the study concluded that smart contracts has a positive influence on the growth of the insurance industry in Asia.

A study by Akande (2018) examined the disruptive power of the blockchain technology in the insurance sector in Estonia, Europe. The study used a systematic literature review as the preferred research design. The findings of the study indicated that blockchain technology encourages the use of a distributed database which has a significant impact in the prevention of fraud cases through anti-money laundry (AML) compliance procedures than a central database. The findings also revealed that the use of AML processes will significantly reduce operational costs of insurance firms especially in fraudulent claims, insurance payment and business process reconciliation. The use of blockchain technology was also found to promote creation of new insurance products such as Peer-to-Peer insurance and encouraged collaboration in the insurance industry.

Another study by Gökalp, Gökalp, Çoban and Eren (2018) investigated on the opportunities and challenges of integration of blockchain technologies in healthcare systems in Europe. The

study used secondary data obtained from government sources and healthcare reports between 2010-2018. The data was analysed using panel data analysis. The results of the study indicated that blockchain technology offers promising solutions for safeguarding stakeholder communications, delivering clinical reports quickly, combining different types of private health records of people on a secure infrastructure and efficient inventory tracking. The results also found that the benefits of using blockchain in the healthcare industry are evaluated from a variety of perspectives, including transparency, accountability, decentralization, record accuracy, secure transactions, lower costs and improved diagnosis methods. While the challenges associated with the integration of blockchain technology include poor governance, poor legal frameworks, low participant uptake and high operational costs.

A study by Corluka and Lindh (2017) explored on the impact of implementation of blockchain technology on the real estate market. The study employed semi-structured interviews and questionnaires to obtain data from 200 employees in the real-estate market. The data obtained was analysed using the regression model analysis. The results of the regression analysis indicated that implementation of the blockchain technology has a positive and significant impact on the reduction of transaction costs, personal biases and slow transaction processes in the real estate market. The findings of the study also revealed that there is a positive relationship between implementation of blockchain technology and efficiency of the real estate market. Thus implementation of the blockchain technology will improve transparency and safety of transactions in the real-estate market.

A study by Alli, Ganiyu and Aina (2020) investigated on the place of Nigerian insurance industry in the cryptocurrency insurance as an emerging market. The target population of the study comprised of 15 insurance companies quoted at the Nigeria Stock Exchange Commission where a sample size of 75 respondents was drawn. The study employed the Kolmogorov-Smirnov test as the preferred data analysis techniques. The study noted that the growth and popularity of cryptocurrency investments in Nigeria had increased significantly with most of the insurance firms and individuals obtaining an insurance policy that will safeguard their interest as they invest in cryptocurrency. The findings of the study also revealed that insurance companies were financially ready to provide cryptocurrency insurance for the numerous risks encountered during holding cryptocurrencies by organizations and individuals.

Amponsah, Adekoya and Weyori (2022) conducted a study on improving the financial security of national health insurance using cloud-based Blockchain technology application in Ghana. The study analysed the conceptual view of the proposed blockchain system, data management framework, smart notification system, and smart claim processing system. The systems were evaluated using the DeLone & McLean Information Systems Success Model. The model was used to validate the behavioral aspect of the system. The study noted that fraud and corruption have been the main problems threatening the financial security of the National Health Insurance Scheme (NHIS) in Ghana. The results of the study discovered a significant influence of information quality

and user satisfaction. On the contrary, system quality seems to have an almost significant influence on the use and user satisfaction of the proposed system.

A study by Musyoki, Shitanda and Nganu (2020) sought to determine the factors that influence the successful adoption of blockchain technology in the insurance industry in Kenya. The target population of the study comprised of 52 insurance companies registered in Kenya and a sample size of 16 insurance companies was obtained using stratified random sampling technique. The study adopted a descriptive research design and used both quantitative and qualitative data. The findings of the study indicated that the motivational aspect, internal barriers, external barriers and ecosystem barriers were the main factors that influenced the successful adoption of the blockchain technology in the insurance industry. The study also found that most of the insurance companies lacked well-equipped legal frameworks to ensure effective adoption of blockchain technology. Therefore, the study recommended that insurance companies should be more innovative to create efficient legal frameworks that puts into consideration the factors discussed since they promote successful adoption of the blockchain technology.

Shitanda, Musyoki and Nganu (2020) carried out a study to compare the current processes used by insurance companies and influence of block chain technology on business performance in Kenya. The study used a target population of 52 insurance companies where a sample size of 120 insurance managers was drawn using stratified random sampling technique. The study also used primary data collection methods where 120 questionnaires were administered to insurance managers. The results of the study revealed that the failures of the current insurance processes included; lack of transparency between the parties involved in receiving payments, inaccurate payment records and payment detail verification, management misunderstandings, legal reporting systems fraud, presentation of fictitious claims and poor client-company communication. The results of the study also indicated that most businesses are aware of blockchain technology but they have not yet integrated it into their operations. In addition, the results also found that blockchain technology had a positive and significant influence on business performance, especially in decreasing fraud cases, quickening claim settlements, heightening the level of data security and integrity and improving the digitization process. Thus, the study recommended that there is need for policy guideline on operations of insurance companies.

METHODOLOGY

The research methodology used in this study consisted of a systematic literature review of previous studies from different scholars, that have discussed on insurance opportunities and challenges in the cryptocurrency world or research topic related to the study topic. This research method was preferred since it is quite reliable, cost-saving and time-saving as compared to primary research methods. This study relied more on online journals, articles and published work from libraries since they provide easy access to secondary information/data.

RESULTS

The results of this study were categorized into various research gaps that the researcher identified from the literature review. The research gaps included; conceptual and contextual gaps.

Conceptual and Contextual Gaps

Studies by Corluka and Lindh (2017), Amponsah, Adekoya and Weyori (2022), Gökalp, Gökalp, Çoban and Eren (2018), Akande (2018), Bader, Bürger, Matzutt and Wehrle (2018), Akbar and Khan (2021), Tarr (2018), Shitanda, Musyoki and Nganu (2020) and Musyoki, Shitanda and Nganu (2020) consisted of conceptual and contextual gaps. This is because most of them discussed on blockchain technology and smart contracts as the only components in the cryptocurrency market that insurance firms have tapped into. In addition, some of these studies have discussed on the opportunities and challenges in the real estate market and healthcare systems or a specific type of insurance firm rather than the bigger picture of the insurance industry.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that the cryptocurrency market has many opportunities that the insurance industry can tap into to improve and modernize their operating systems which as discussed has numerous benefits. However, for the successful adoption of the blockchain technology and smart contracts, insurance firms must develop efficient legal frameworks that can help them handle the technological challenges that come with the use of blockchain technology and smart contracts.

The findings of this study will be beneficial to the different stakeholders in the insurance industry. The study will provide a better understanding to the management of the insurance companies, on how they can invest on the various opportunities available in the cryptocurrency market. The management of the insurance industry will also find the results regarding the influence of these opportunities on business performance quite helpful. The policymakers in the insurance industry will also benefit from the discussion on challenges that arise from adoption of blockchain technology and smart contract, as they implement various policies that promote growth of the insurance industry.

Further, researchers and scholars will find this study relevant considering that studies on insurance opportunities and challenges in a cryptocurrency world are quite scarce. This study will provide a literature base for their studies. Moreover, the identified research gaps in this study will act as a motivation to the different researchers and scholars to conduct more studies on related topics, thus bridging the research gaps on insurance opportunities and challenges in a cryptocurrency world. On the other hand, the theories discussed in this study will be beneficial to the researchers and scholars since it gives a better understanding on the application of these theories to insurance and the cryptocurrency world.

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